



**STATEMENT OF WORK  
FOR FIBER AND POWER CABLING INSTALLATION**

**GENERAL CONSTRUCTION SERVICES**

**For  
FIBER AND POWER CABLING  
INSTALLATION UP TO THE INTERNATIONAL BUILDING  
AND SAFETY CODES**

**U.S. CONSULATE  
Erbil, IRAQ**

**January 12, 2015**

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## **1.0 PROJECT DESCRIPTION**

### **1. PROJECT SYNOPSIS**

The project is described as “Outdoor Fiber and Electrical Cabling Installation” at the US Consulate, Erbil, Iraq.

The Contractor should furnish all necessary tools, labors, transportation, equipment’s, investigation and supervision, etc. Work will performed within in fixed-price contract.

### **2. BACKGROUND**

At present the Fiber and electrical cabling is not enough for the more security equipment’s the Consulate will Received like; more cameras, select tone, etc.... The upgrading must be address various things such as cabling, clamps, terminals and security concerns.

### **3. SOLUTION**

Improve the number and type of cabling by adding electrical and fiber cabling and installing Copper Ground rods for all areas as required. Confirm and/or replace the ground in all electrical connections within the path per NEC. Upgrading the electrical system by installing all cabling in metal conduits instead of Panduit’s

## 2.0 GENERAL CONDITIONS

1. **Fixed-Price Proposal.** The Contractor shall provide one fixed-priced Proposal for the complete Project that includes every aspect of the Work.
2. **Specifications.** The Work shall be governed by the US Consulate, Erbil, Iraq. International Codes, which includes the National Fire Prevention Association (NFPA), International Building Code, International Mechanical Code, International Plumbing Code, and National Electric Code (NEC), also are applicable. Should there be a discrepancy between the US Consulate Specifications and the applicable Building Code, the more stringent of the two shall govern.

The Contractor is responsible for compliance with all Building Codes; Work not in compliance with the Codes shall be deemed to be unacceptable.

3. **Execution.** The Work shall be executed in a diligent and workmanlike manner in accordance with the negotiated fixed-price, this Scope of Work, the Project Schedule, International Building Codes, and the laws of the City of Erbil where applicable.
4. **Work Hours.** Unless otherwise agreed with COR and the TSO, the Work shall be executed during normal Embassy work hours. Night, weekend or holiday work shall not be permitted except as arranged in advance with TSO and COR. Embassy holiday schedule is available from TSO or COR.
5. **Safety.** The Contractor shall be responsible for conducting the work in a manner that ensures the safety of residents, employees and visitors to the Embassy, and the Contractor's employees.
  - a. Active, overhead, power lines are present and extreme caution should be taken by the Contractor to insure safety in the construction, personnel and moving of material at any Consulate Property.
6. **Workforce.** The contractor shall provide all supervision, skilled and unskilled labor needed to perform the work. The contractor shall fill all necessary documents for each skilled and unskilled workers he has as post security requirements. PME/TSO is responsible to provide the escort.
7. **Subcontractors.** Contractor shall be responsible for the conduct and workmanship of Subcontractors engaged in the Project, and for Subcontractors compliance with the terms of this Statement of Work. The Contractor is responsible for the behavior and workmanship of Subcontractors while on Consulate property.
8. **Modification to Contract.** The Contractor shall not incur any costs beyond those described in this SOW unless directed otherwise in writing by the Contracting Officer. Any work performed by the Contractor beyond this SOW without written direction from the Contracting Officer will be at the Contractor's own risk and at no cost to the Consulate.
9. **Stop Work.** At any time during the Project, the Contracting Officer reserves the right to Stop Work for protection of employees or visitors, security, or any other reason at his/her discretion.

**Submittals.** The contractor is responsible to submit shop drawings prior to fabrication and release of any materials for the COR Review and approval.

10. **Excavation and Utilities.** The contractor is responsible to locate all existing utility lines prior to any excavation. Prior to disconnecting any existing utility services, the contractor is responsible to provide 48-hour advance notice to the COR.

11. **Close-out.** Prior to final acceptance, the contractor is to submit to the COR marked up drawings (As-Built) reflecting the work as constructed. The drawings shall be digitally submitted on a CD-ROM in both AutoCAD and PDF format.

12. **Housekeeping.** The contractor is responsible to clean up daily after working hours.

13. **Resident registration/Certified/Licensed:** The local contractor shall have a resident registered/certified/licensed civil engineer or graduate architect on site or a qualified construction supervisor at all the time, which should have at least two years' experience in similar work and can speak, write and read English at a moderate or higher level. The local contractor shall submit curriculum vitae of the resident engineer to the CO and COR for approval.

### **3.0 BID FORM**

#### **Construction Cost Breakdown: Upgrading Fiber and Electrical Outdoor Wires, Erbil, Iraq**

**US CONSULATE ERBIL**

No	Descriptions	Unit	Qty	Unit Price \$	Total Price \$
<b>1</b>	<b>Administration</b>				
A	Mobilization / Demobilization	LS	1		
B	Submittals - product data & shop drawings	LS	1		
	<b>Administration</b>			<b>Sub-Total</b>	
<b>2</b>	<b>Construction Work</b>				
A	Architectural	LS	1		
C	Electrical	LS	1		
D	Voice and Data Cabling	LS	1		
E	Close-out	LS	1		
	<b>Construction</b>			<b>Sub-Total</b>	
<b>3</b>	<b>DBA Insurance</b>				
A	Contractor shall cover each of its workers at the site with DBA Workers' Compensation coverage, and require its subcontractors to do the same. Contractor must furnish certificate evidencing this coverage to Engineer prior to starting work.	LS	1		
	<b>DBA Insurance</b>			<b>Sub-Total</b>	
	<b>Items 1 thru 3</b>			<b>Sub-Total</b>	
				G & A	
				Sub-Total	
				Profit	
<b>4</b>	<b>Basic Bid -</b>			<b>Contract Cost</b>	
A	<b>Bid -</b>			<b>Contract Cost</b>	

**4.0 SCOPE OF WORK:**

Upgrading the fiber and electrical cabling for more security equipment's installation the contractor shall be providing all materials (as listed in SOW and drawings attached – both), tools and labors, transportation, and supervision.

## **1. General Requirements**

- a. Within 2 days of Notice to Proceed, the contractor shall provide to the COR a project schedule showing start to completion including significant milestones.
- b. Within 3 days of Notice to Proceed "NTP", the Contractor shall provide to the COR details of the proposed installation utilizing written description or sketches or both.
- c. The contractor is responsible for cleaning and removing all debris from compound to the nearest dump facility authorized by the town. The contractor is responsible to repair/replace all equipment/bldg.'s/walls/etc... got damaged during the project to the original condition after the work is completed.
- d. The contractor is responsible to properly layout and prepare for the installation based on locations provided by FAC and TSO.
- e. The contractor will provide the COR with weekly work progress reports and construction schedule updates during the duration of the project.
- f. When pursuing the work, the contractor is to take extra care as not to damage existing structure.
- g. The work zone must be clearly marked with warning signs and yellow plastic safety tape fixed to wood posts. The contractor must comply with all applicable safety standards to protect the Consulate General employees, the public and local contractor workers from injuries and accidents. The local contractor will be held liable for injuries or accidents sustained due to negligence by the contractor during the course of this project. And all construction work will be in conformance with the following Codes:
  - f1) International Building Code, 2009 Edition plus the 2012 OBO International Code Supplement.
  - f2) International Plumbing Code, 2009 Edition plus the 2012 OBO International Code Supplement.
  - f3) International Fire Code, 2009 Edition plus the 2012 OBO International Code Supplement.
  - F4) National Electric Code, 2011 Edition plus the 2012 OBO International Code Supplement.
  - F5) International Residential Code 2009 Edition plus the 2012 OBO International Code Supplement.
  - F6) National Fire Protection Association, NFPA 101 & NFPA 58
  - F7) ICC/ANSI A117.1-98 Accessible and Usable Buildings and Facilities
  - F8) NECA 90 Recommended Practice for Commissioning Building Electrical Systems (ANSI)
  - F9) NECA 1-2010 Standard Practice of Good Workmanship in Electrical Construction (ANSI)
  - F10) IEEE C2-2012 National Electrical Safety Code (NESC)

## **A. ARCHITECTURAL**

## **Power Section**

All power feeds called out in this package will be run along existing power poles. The contractor is responsible for making sure all power feeds get pulled to each location called out in this package.

All power entering into buildings will need to have proper weather heads and conduit per national electrical code. The contractor will need to coordinate with the COR and TSO for power feeds penetrations into existing buildings. All power cable shall be within the specification listed below:

South wire Multiplex Service Drop Code name Garamond or equivalent

3 conductor 8 AWG copper cables with 8 AWG stranded neutral-messenger

<http://www.southwire.com/ProductCatalog/XTEInterfaceServlet?contentKey=prodcatsheet47>

## **Fiber Section**

All fiber feeds called out in this package will be run along existing power poles. The contractor is responsible for making sure all power feeds get pulled to each location called out in this package.

All fiber entering into buildings will need to have proper weather heads and conduit per national electrical code. The contractor will need to coordinate with the COR and PME as to how long the fiber service loops will be per the contractors package. All fibers cable shall be within the specification listed below:

- **All fiber will be Corning**
- WW – ALTOS® Figure-8 Loose Tube, Gel-Free Cable, 24 F, 62.5 µm multimode (OM1)
  - Part Number: 024KUA-T4130D20
  - [http://catalog.corning.com/opcomm/en-US/catalog/ProductDetails.aspx?cid=&pid=8815&vid=11750&context=;CCS\\_Global\\_Web\\_Catalog;fiber\\_optic\\_cables\\_web;](http://catalog.corning.com/opcomm/en-US/catalog/ProductDetails.aspx?cid=&pid=8815&vid=11750&context=;CCS_Global_Web_Catalog;fiber_optic_cables_web;)
- YY - ALTOS® Figure-8 Loose Tube, Gel-Free Cable, 12 F, 62.5 µm multimode (OM1)
  - Part Number: 012KUA-T4130D20
  - [http://catalog.corning.com/opcomm/en-US/catalog/ProductDetails.aspx?cid=&pid=8815&vid=11749&context=;CCS\\_Global\\_Web\\_Catalog;fiber\\_optic\\_cables\\_web;](http://catalog.corning.com/opcomm/en-US/catalog/ProductDetails.aspx?cid=&pid=8815&vid=11749&context=;CCS_Global_Web_Catalog;fiber_optic_cables_web;)

## **General Notes for the Project:**

Contractor is responsible to provide all fiber and power cabling from the switch gear, TSO Garage and CAC's to each point tagged in the attached drawing and this is not limited to all materials, tools, terminals, crane, trucks, and supervision to get the work done.

The contractor is responsible to pull all fiber and power feeds out in the drawing attached, also the contractor is responsible to install grounding rod with #6AWG bare copper wires and 2inch weather head per the drawing attached.

TSO will provide the design package and specifications for the installation of all Fiber, power infrastructural and weather head. It is the local contractor responsibility to review and understand the work involved and what is required to complete the project. If any error or inconsistencies are found on the drawings, the local contractor will bring these to the attention of the consulate general and/or PME.



TSO/POST will not provide FIBER, POWER CABLES, TWO INCH WEATHER HEAD and GROUNDING RODS. It's the contractor responsibilities to provide all and other materials listed above and below and this is not limited to new power poles as needed per the POSHO assistant orders.

### **Site Installation Oversight**

A security installation supervisor representing TSO will be on site to provide design installation oversight for all work in this contractor's package.

### **Daily Reports (DAR)**

Contractor is responsible to provide detailed project schedule, with start and end dates for work activities and stating a critical path. The contractor will provide the COR with daily work progress reports and construction schedule updates during the duration of the project.

### **Final Completion**

The Contracting Officer Representative (COR) will have final approval of all work performed by the local contractor.

### **D. Closeout**

1. At completion of work, the Contractor shall clean any impacted areas to a condition equal to original condition.
2. All shipping materials and construction debris are to be disposed of in a legal manner outside of the compound.
3. Prior to Final Acceptance the Contractor shall submit to the Contracting Officer Representative marked up drawings (As-Built) reflect the work as constructed. The drawings shall digitally submit on a CD-ROM in both AutoCAD and PDF format.

### **SAFETY (FAR 52.236-13 Accident Prevention.)**

1. The Contractor shall provide and maintain work environments and procedures which Will:
  - (a) Safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to Contractor operations and activities.
  - (b) Avoid interruptions of Government operations and delays in project completion dates.
  - (c) Control costs in the performance of this contract.
2. For these purposes on contracts for construction or dismantling, demolition, or removal of improvements, the Contractor shall-
  - (a) Provide appropriate safety barricades, signs, and signal lights
  - (b) Comply with the standards issued by the Secretary of Labor at 29 CFR part 1926 and 29 CFR part 1910
  - (c) Ensure that any additional measures the Contracting Officer determines to be reasonably necessary for the purposes are taken.

3. Contractor shall comply with all pertinent provisions of the latest version of U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, in effect on the date of the solicitation.
4. Whenever the Contracting Officer becomes aware of any noncompliance with these requirements or any condition which poses a serious or imminent danger to the health or safety of the public or Government personnel, the Contracting Officer shall notify the Contractor orally, with written confirmation, and request immediate initiation of corrective action.

This notice, when delivered to the Contractor or the Contractor's representative at the work site, shall be deemed sufficient notice of the noncompliance and that corrective action is required. After receiving the notice, the Contractor shall immediately take corrective action.

If the Contractor fails or refuses to promptly take corrective action, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any stop work order issued under this clause.

5. The Contractor shall insert this clause, including this paragraph (e), with appropriate changes in the designation of the parties, in subcontracts

## **5.0 PROJECT SCHEDULE**

### **1. Approximate dates of pre-award activities**

Pre-Bid Site Survey	o/a
Bids Due	o/a
Contract Award	o/a
Notice to Proceed (NTP)	o/a

## 2. Construction Milestones, from Notice to Proceed

Notice to Proceed (NTP)	0	
Project Schedule to OBO	2	Days from NTP
Project Design Notes / Sketches	3	
FAC Review	2	
Procurement, Shipping	7	
Fabrication	15	
Construction Completion	30	
Project Acceptance	30	

## 3. Deliverables

Construction Schedule	2	Days from NTP
Project Design Notes / Sketches	3	
Submittals for Major Equipment	2	
Manufacturer's Literature	30	
As-Built, Warranties	30	

## 4. Commencement, Prosecution, and Completion of Work

The Contractor shall be required to (a) commence work under this contract within two (2) Calendar days after the date the Contractor receives the Notice to proceed, (b) prosecute the work Diligently, and (c) complete the entire work ready for use not later than Thirty (30) working days After NTP. The time stated for completion shall include final cleanup of the premises.

## 6.0 RESPONSIBILITIES AND PROJECT MANAGEMENT

1. **COR.** A Contracting Officers Representative (COR) will be assigned to ensure quality assurance goals are met. The Contractor shall provide the COR access to the site at all times.

2. **Point of Contact.** The COR shall be the main point of contact for this Project. The Contractor shall report to the COR on (a) status of the Project, (b) changes in Schedule, (c) accidents and safety issues, (d) disruptions to elevator or utility services; and all other important information pertaining to the Project
3. **English Speaking Representative.** The Contractor shall provide an English-speaking representative on-site during all working hours with the authority to make all decisions on behalf of the Contractor and subcontractors.
4. **Management Personnel.** The Contractor shall staff the site, full-time, with a competent senior manager who shall perform project management. Remote project management is not an option. This individual shall keep a detailed photographic and written history of the project and shall update the Government weekly.
5. **Site Security.** The Contractor is responsible for on-site security as necessary to ensure no unauthorized access to their work sites. The Contractor is 100% responsible for securing their working materials and equipment. Any damage to facilities or infrastructure, which happens due to a lack of security, will be the responsibility of the Contractor to correct.
6. **Contractor's Temporary Work Center.** The Contractor will be permitted to use a designated area within the contract limits for operation of his construction equipment and office if warranted. If directed by the Contracting Officer, the Contractor shall not receive additional compensation to relocate his operations. The Contractor is responsible for obtaining any required additional mobilization area above that designated. On completion of the contract, all facilities shall be removed from the mobilization area within 5 days of final acceptance by the Contractor and shall be disposed of in accordance with applicable host government laws and regulations. The site shall be cleared of construction debris and other materials and the area restored to its final grade. The Contractor is responsible for maintaining this area in a clear orderly manner.
7. **Health and Safety.** The Contractor shall be solely responsible for risk assessments, managing health, and safety issues associated with this project. The Contractor must provide cold water to all workers at the job sites. Based on hazard assessments, Contractors shall provide or afford each affected employee personal protective equipment (PPE) that will protect the employee from hazards. At a minimum PPE shall consist of eye protection, hard hats, and closed toe shoes. If the workers arrive on-site with sandals or athletic shoes, the Contractor is expected to provide rubber boots to them or send them home. All construction workers and management personnel must wear hard hats at all times on the construction sites. Contractor provided rubber boots and rubber gloves shall be worn when working around concrete placement. Other PPE such as gloves, dust masks, air respirators (sewage work) are also recommended. These items must be provided at the Contractor's expense. Workers may use discretion if they feel unsafe in using the equipment in a hostile environment. Any worker at an elevated location above 4 meters, with the exception of a portable ladder, must be provided and utilize a safety harness.
8. **Progress Payments.** If the contract awarder expects to receive more than one (1) progress payment, the Contractor must submit a broken out Cost Proposal with a Schedule of Values in order to properly calculate the percentage of contract completion.